Lead Technology Solutions Engineer

Credential Engine is an equal-opportunity employer. Women, people of color, and individuals with disabilities are encouraged to apply. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of the job.

Position Details
Status: Full-time
Location: Remote, flexible in the United States
Reports to: Chief Technology Services Officer

Who We Are
Credential Engine is a non-profit whose mission is to map the credential landscape with clear and consistent information, fueling the creation of resources that empower people to find the pathways that are best for them. We envision a future where millions of people worldwide have access to information about credentials that opens their eyes to the full range of opportunities for learning, advancement, and meaningful careers. For more information, visit www.credentialengine.org.

What We Do
Credential Engine provides a suite of web-based services that creates for the first time a Credential Registry to house up-to-date information about all credentials and a common description language to enable credential comparability, enabling a marketplace of customized applications using information about credentials.

Credential Engine currently works with a growing number of states to support their efforts to make essential data about credentials and competencies public, transparent, and linked in order to better serve learners, workers, employers, and others. Credential Engine partners with national state leadership organizations and workforce, education and data advocacy/technical assistance organizations to support the development and implementation of policies that make credential transparency enduring in states. We work with a number of national postsecondary education associations that have endorsed credential transparency and our work. And we are exploring opportunities to expand our partnerships internationally.

Why We Do It
Through an increasing array of credentials – such as degrees, licenses, badges and apprenticeships – job seekers, learners, and workers have more options than ever to help them get ahead. Yet, until now, there has never been an efficient way to collect, search, and compare credentials in a way that can be both universally understood and maintained in a manner that keeps up with the speed of change in the 21st century. With more than 60,000 providers of over 1,000,000 credentials in the U.S. alone, and likely millions worldwide, this lack of information in the marketplace contributes to confusion and uninformed decision making.
Position Description
The Lead Solutions Engineer is responsible for managing the Credential Engine Technology Solutions (CETS) team and actively contributing to the maintenance and development of Credential Engine's technology stacks. This role involves leading day-to-day operations and activities of the technical team, ensuring the seamless functioning of our technology solutions. In addition to architcting solutions and mentoring a team, you also will be writing code and developing the more complex solutions with your team.

The Lead Solutions Engineer collaborates with internal and external stakeholders, oversees multiple projects, and provides technical expertise in end-to-end web and database development. The role requires exceptional leadership skills, attention to detail, and proficiency in various technologies. This role exemplifies flexibility, working both independently and collaboratively, and manages complex situations and relationships with confidence, confidentiality, and tact.

CETS Team and Technology Stacks
The CETS team currently includes four staff members: Senior Solutions Architect, two Associate Solutions Architects, and a Solutions Developer. This team is augmented by external technical resources who are long-time Credential Engine partners. The technology stacks provide national infrastructure for credential transparency. These technologies are typically developed as open source and are for the purpose of converting information to CTDL linked open data structure. Core infrastructure includes: Credential Registry Accounts and Publishing System, Credential Registry publishing API, Credential Transparency Description Language, and the Credential Registry. All technologies are built on the Credential Transparency Description Language (CTDL). These technologies are utilized by numerous organizations to transform information to CTDL linked open data structure on the Web and in the Credential Registry. These are not products that are sold to customers. Rather, access to the software and infrastructure is openly available. Credential Engine also provides contracted services to organizations including the United States Navy, requiring security clearance.

Visit https://credreg.net to learn more about the CTDL and Credential Registry.

Qualifications

- Must be a U.S citizen or be a naturalized citizen of the United States and be willing to submit to a background check for a security clearance.
- Minimum of seven years of combined technical education credential, developer, and leadership experience.
- Significant experience leading and directly participating with end-to-end web and database development including design, construction, updates, and maintenance.
  - Helps maintain professional standards reflected across the entire organization.
  - Has deep, substantial expertise in multiple programming environments.
  - Proven ability to lead, prioritize, and manage multiple technology projects simultaneously.
  - Leadership experience with running and directing small teams for substantial projects and with managing complex situations and relationships with confidence, confidentiality, and tact.
  - Capable of executing projects across multiple technical domains ("full stack," data architecture, devops, etc).
  - Has an interest and ability to learn new technical subjects when you need to solve new types
of problems.
  ○ Can pursue investigation and problem solving into issues to resolve them, and can also recognize when it's more efficient to ask for help vs push forward to solve a problem. Believes that all technical problems are solvable with enough effort.
  ○ Seeks to mentor others; seeks to share what they know; wants to see their work have impact in the world.

● Substantial practical expertise in implementing: Microsoft .NET, including Microsoft .NET MVC, Visual Studio 2019+, React, SQL Server, PostgreSQL Server, C#, Web API, HTML, CSS, Javascript, and GitHub.
  ○ Experience with making architecture recommendations and decisions.
  ○ SQL-based database: design, queries, implement standard connectivity to/from SQL servers.
  ○ DevOps: Has a solid knowledge of designing and implementing devops pipelines, using tools such as docker, kubernetes, or related systems.
    - Can design basic, secure (cloud) networks for web server type systems.
    - Working experience with Azure and/or Amazon cloud services.
    - Understands basic infosec principles to design, evaluate, and operate systems securely.
  ○ Knowledge of JSON-LD is preferred.

● Solutions Design / Systems Architecture
  ○ Can work with internal and external customers to understand the business problems and propose, adapt, and design technical solutions to meet those needs.
  ○ Can translate technical concepts to non-technical audiences and simplify complex concepts without oversimplifying.
  ○ Ability to explain technical issues in actionable ways to non-technical people through multiple communications methods.
  ○ Can design and configure/operate the technical systems required to implement a technical solution.
  ○ Understands cryptography and security enough to design systems that use existing login/identity standards securely (OAuth2, JWTs, etc).
  ○ Avoids overly complex technology solutions, preferring complexity levels based on the needs of specific projects.
  ○ Can write clear, simple specifications to reflect how a system will be built.

● Testing and Reliability Engineering
  ○ Understands TDD vs manual QA Engineering, and where each is appropriate in developing software.
  ○ Can build automated testing frameworks when necessary for software pipelines, and knows how to implement “enough testing” without relying on a “test everything” approach.
  ○ Can design functional monitoring solutions for uptime management.
  ○ Capable of implementing test automation.
  ○ Can write developer docs for a project to assist a new engineer in learning to develop in a codebase.
  ○ Can define uptime failure recovery documentation: what to do when a system fails.
  ○ Can debug and analyze production systems for faults.
  ○ Can conduct performance testing using tools such as K6, New Relic, Skylight, JMeter, and similar tools to find performance issues, design faults and system optimizations.

Work Environment and Physical Demands:
Credential Engine is headquartered in Washington, DC, with team members located across the country. Work is conducted remotely, typically from home locations, with demands similar to those of a
traditional office environment. Visual and auditory acuity for extensive use of various forms of technology is essential.

**Compensation**

A competitive package including salary and benefits (holidays, PTO, insurance coverage for health, dental, vision, life and disability, and a retirement plan) is available and is commensurate with experience and qualifications. The expected salary range is $175,000 - $190,000.

**Application Process**

Please submit a resume and cover letter to resumes@credentialengine.org with “Lead Technology Solutions Engineer” in the subject line to apply for this position. **Priority will be given to applications submitted by January 31, 2024.** The position will remain open until filled.